

RB-Rbs-101

Dynamixel AX-18A Smart Serial Servo



CAUTION

- * Gear design has changed to improve durability and is not compatible AX-18F gear.
- * The gear set for AX-18A will be sold separately.

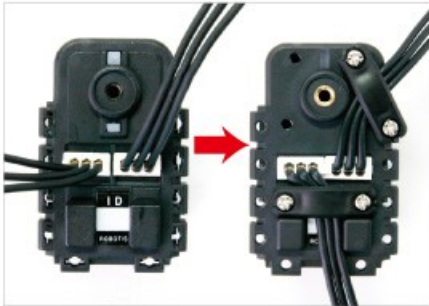
DESCRIPTION

- AX-18A has the same performance but more advanced external design than the AX-18F. AX-18A is 100% compatible with the AX-12+ at a 1:1 scale, with the same control method.

Upgrade Information

1. Easier and stable cable organization

Additional holes created for easier and stable cable organization.



2. Second notch for zeroing added at the horn

Easier to verify zeroing with notch I (top) and notch II (bottom).



⚠ The notches, I top, in both products are still the same. Please keep in mind during assembly.

3. Strengthened frame assembly at nut/bolt holes

The new design increases durability and reduces damaged rates.



4. Nut assembly improvement

The horn and nuts have been fixed inside the horn to strengthen assembly.



- Can be used to build quadrupeds, 6 legged, or multi jointed robots using optional frames.
- Can be used as wheels and can be composed of a wheel and actuator type system.
- Replace all or simply just the joints that require more torque. You'll be surprised at the performance!
- Applied a 4th metal gear to enhance endurance±
- Please maintain the highest limit temperature the same as the default setting value for safe usage±

INCLUDES

DESCRIPTION		QTY
DYNAMIX EL	AX-18A	1
Horn	AX-HORN	1/mounted
Frame	BPF-WA/BU Set	1
Cable	BIOLOID 3P Cable 200MM	1
Bolt/Nut	Bolt(PHS M2*6)	16pcs
	Bolt(BHS M3*10)	1
	N1 NUT M2	16pcs

SPECIFICATION

Name	AX-18A
Weight	54.5g
Dimension	32mm x 50.1mm x 40mm
Gear Ratio	254 : 1
Stall Torque	18 kgf.cm (12V, 2.2A)
No Load Speed	97 RPM (12V)
Motor	Coreless Motor
Minimum Control Angle	About 0.29 $\frac{\circ}{\text{V}}$ x 1,024
Operating Range	Actuator Mode : 300 $\frac{\circ}{\text{V}}$ Wheel Mode : Endless turn
Operating Voltage	9~12V (Recommended voltage : 11.1V)
Operating Temperature	-5 $\frac{\circ}{\text{C}}$ ~ 70 $\frac{\circ}{\text{C}}$
Communication Method	Digital Packet
Protocol	Half duplex Asynchronous Serial Communication (8bit,1stop,No Parity)
Link (physical)	TTL Level Multi Drop (daisy chain type Connector)
ID	254 ID (0~253)
Baudrate	7843bps ~ 1 Mbps
Feedback Function	Position, Temperature, Load, Input Voltage, etc.
Material	Case : Engineering Plastic Gear : Engineering Plastic + Metal (4 th gear)

Position Sensor	Potentiometer
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INITIAL SETTING (DEFAULT)

- ID : 1
 - Baudrate : 1Mbps
- (Please change the ID and baudrate setting based on your operating environment)

COMPATIBLE PRODUCTS

- Controller : CM-5, CM-510, CM-2+, CM-700
- Interface (I/F) : USB2Dynamixel
- Frame : Frames for BIOLOID

CONTROL ENVIRONMENT

- Software for Dynamixel control : ROBOPLUS - Download
- C/C++, C#, Labview, MATLAB, Visual Basic et. : Library – Download